National Transportation Safety Board
Washington, DC 20594

Brief of Accident

Adopted 03/31/1998

DCA97MA016
File No. 46 | 12/22/1996 | NARROWS, VA | Aircraft Reg No. N827AX | Time (Local): 18:10 EST

Make/Model:	Douglas / DC-8-63F
Engine Make/Model:	P&W / JT3D-7
Aircraft Damage:	Destroyed
Number of Engines:	4
Operating Certificate(s):	Flag Carrier/Domestic
Type of Flight Operation:	
Reg. Flight Conducted Under:	Part 91: General Aviation

	Fatal	Serious	Minor/None
Crew	6	0	0
Pass	0	0	0

Last Depart. Point:	GREENSBORO , NC
Destination:	Local Flight
Airport Proximity:	Off Airport/Airstrip

Condition of Light:	Night/Dark
Weather Info Src:	Weather Observation Facility
Basic Weather:	Instrument Conditions
Lowest Ceiling:	4000 Ft. AGL, Overcast
Visibility:	7.00 SM
Wind Dir/Speed:	270 / 004 Kts
Temperature (°C):	4
Precip/Obscuration:	Rain Showers

Pilot-in-Command Age: 48

Certificate(s)/Rating(s)
Airline Transport; Commercial; Flight Engineer; Multi-engine Land; Single-engine Land;
Instrument Ratings
Airplane

Flight Time (Hours)

Total All Aircraft:	8087
Last 90 Days:	34
Total Make/Model:	869
Total Instrument Time:	UnK/Nr

The airplane impacted mountainous terrain while on a post-modification functional evaluation flight (FEF). The pilot flying (PF) had applied inappropriate control column back pressure during the clean stall maneuver recovery attempt in an inadequate performance of the stall recovery procedure established in ABX's (Airborne Express) operations manual. The pilot not flying (PNF), in the right seat, was serving as the pilot-in-command and was conducting instruction in FEF procedures. The PNF failed to recognize, address and correct the PF's inappropriate control inputs. An inoperative stall warning system failed to reinforce to the flightcrew the indications that the airplane was in a full stall during the recovery attempt. The flightcrew's exposure to a low fidelity reproduction of the DC-8's stall characteristics in the ABX DC-8 flight training simulator was a factor in the PF holding aft (stall-inducing) control column inputs when the airplane began to pitch down and roll. The accident could have been prevented if ABX had institutionalized and the flightcrew had used the revised FEF flight stall recovery procedure agreed upon by ABX in 1991. The informality of the ABX FEF training program permitted the inappropriate pairing of two pilots for an FEF, neither of whom had handled the flight controls during an actual stall in the DC-8.

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Occurrence #1: LOSS OF CONTROL - IN FLIGHT
Phase of Operation: CRUISE

Findings
1. STALL - INTENTIONAL - PILOT IN COMMAND
2. (F) STALL WARNING SYSTEM - INOPERATIVE
3. (C) FLIGHT CONTROLS - IMPROPER USE OF - COPILOT/SECOND PILOT
4. (F) FACILITY INADEQUATE - MANUFACTURER
5. (C) INSUFFICIENT STANDARDS/REQUIREMENTS - COMPANY/OPERATOR MGMT
6. (C) SUPERVISION - INADEQUATE - PILOT IN COMMAND

Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: DESCENT - UNCONTROLLED

Findings Legend: (C) = Cause, (F) = Factor

The National Transportation Safety Board determines the probable cause(s) of this accident as follows.
the inappropriate control inputs applied by the flying pilot during a stall recovery attempt, the failure of the nonflying pilot-in-command to recognize, address, and correct these inappropriate control inputs, and the failure of ABX to establish a formal functional evaluation flight program that included adequate program guidelines, requirements and pilot training for performance of these flights. Contributing to the causes of the accident were the inoperative stick shaker stall warning system and the ABX DC-8 flight training simulator's inadequate fidelity in reproducing the airplane's stall characteristics. (NTSB Report AAR-97/05)